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10/733,788	12/10/2003	Mehmet Yunt	MWS-106	8974
959 7590 01/10/2007 LAHIVE & COCKFIELD, LLP ONE POST OFFICE SQUARE BOSTON, MA 02109-2127			EXAMINER SILVER, DAVID	
			ART UNIT 2128	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/733,788	YUNT ET AL.	
	Examiner	Art Unit	
	David Silver	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>20061004</u> . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

1. Claims 1-47 were originally presented for examination.
2. Claims 1-47 were rejected.
3. Claims 1-69 (48-69 are new) are currently pending in Instant Application.
4. The Instant Application is not currently in condition for allowance.

Priority

5. Priority is not claimed.

Information Disclosure Statement

6. Applicants did not submit an IDS for consideration. See MPEP 2001.01 [R-2].

Response to Arguments

7. Applicant's arguments filed 10/17/06 ("Reply") have been fully considered but they are not persuasive for the reasons enumerated below.

Examiner Notes

MPEP 714.02 recites, in part:

"The requirements of 37 CFR 1.111(b) must be complied with by pointing out the specific distinctions believed to render the claims patentable over the references in presenting arguments in support of *new claims* and amendments." (emphasis added)

8. The Reply is not fully responsive. See MPEP 714.02. However, the amendment is accepted as an adequate reply to the Non-Final Office Action because: (1) the amendment is a *bona fide* attempt to advance prosecution; (2) there is not sufficient time for Applicant's reply to be filed within the time period of the reply to the Non-Final Office Action; and (3) the nature of the deficiency, does not present a serious omission. See MPEP 714.03 / 37 CFR 1.135.
9. Applicants are respectfully requested to review MPEP 714 and 37 CFR 1.111 for details as to what constitutes a responsive reply.

Response: Telephonic Interview

10. Applicants' remarks are noted but not agreed-to. See Interview Summary submitted with the Instant Office Action.

Response: Claim Objections

11. Applicants are thanked for fixing the objected-to deficiencies. Objections have been withdrawn.

Response: 35 USC §101 Rejections

12. Applicants are thanked for fixing the 35 USC § 101 deficiencies. Rejections have been withdrawn.

Response: 35 USC §112 Rejections

13. Applicants are thanked for fixing the 35 USC § 112 second paragraph deficiencies. Rejections have been withdrawn.

Response: Claim Rejections – 35 USC §102 Rejections

14. Applicants argue primarily that:

14.1 MathWorks "does not disclose or suggest at least "the model comprising one or more blocks that comprise a plurality of execution methods" or "the debug information indicating at least one of the order of the execution of the plurality of execution methods for the one or more blocks and a start time or a stop time of at least one of the plurality of execution methods that are executed during the execution of the model," as required by claim 1 (emphasis added). For at least these reasons, MathWorks at page 12-3 does not disclose or suggest the features of claim 1." **(Reply page 21).**

14.2 "Mathworks at page 12-16 discloses displaying a model's block execution order, and MathWorks at page 12-19 discloses displaying debug settings." **(Reply: bottom of page 21 to top of page 22)**

15. Examiner Response:

The amended portion presents an ambiguity which renders the claim indefinite. Specifically, it is unclear as to whether the each of the blocks comprises a plurality of execution methods, or whether the one or more blocks comprise a plurality of execution methods. In the latter case, having two blocks each with a single execution method would anticipate the claim. However, in the former interpretation the same is not true.

Nevertheless, Applicants' attention is drawn to **(9-37)** which discloses: "The Discrete Filter block implements Infinite Impulse Response (IIR) and

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Finite Impulse Response (FIR) filters." This means that a single block implements two execution methods (IIR and FIR filters). Also, attention is drawn to **(9-42 "The block can integrate using these methods: ...")**

The Examiner thanks the Applicants for agreeing that MathWorks indeed discloses the order of execution (See subsection 2 of the section *supra*).

Response: 35 USC §103 Rejections

16. Applicants argue:

"[R]egarding claim 1, GNU gprof does not disclose or suggest providing a graphical debugger interfaced with a model view of a model being executed, the model comprising one or more blocks that comprise a plurality of execution methods, the graphical debugger having debug information related to the execution of the model, the debug information indicating at least one of the order of the execution of the plurality of execution methods for the one or more blocks and a start time or a stop time of at least one of the plurality of execution methods that are executed during the execution of the mode." Since MathWorks also fails to disclose or suggest these features of claim 1, the combination of MathWorks and GNU gprof does not support a valid 35 U.S.C. §103(a) rejection of claim 1 or claims depending therefrom (namely, claims 4, 10-16, and 23). Claim 25 recites features similar to the features of claim 1. Therefore, MathWorks and GNU gprof, alone or in any reasonable combination, do not disclose or suggest the features of claim 25 or claims depending therefrom (namely, claims 28, 34-40, and 47)."

17. Examiner Response:

Applicants' arguments are moot because the GNU gprof references was not relied-upon in the rejection of the claim 1 or 25. Claims 1 and 25 were rejected as being anticipated by the MathWorks references.

Claim Interpretation

18. Language drawn to merely allowing, enabling or making optional a function's performance does not further limit a claim. See MPEP 2111.04.

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Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

19. Claims 1-24 rejected under 35 U.S.C. 112, second paragraph, as being **indefinite** for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, the amended portion presents an ambiguity which renders the claim indefinite.

Specifically, it is unclear as to whether the each of the blocks comprises a plurality of execution methods, or whether the one or more blocks comprise a plurality of execution methods. In the latter case, two blocks can have a single method each. However, in the former interpretation the same may not be true.

20. Claims not specifically mentioned are rejected by virtue of their dependency.

21. The Applicants are required to fix all other similar occurrences of the above-cited deficiencies.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

22. Claims 1-3, 5-9, 17-22, 24, 25-27, 29-33, and 41-46, 48-69 are rejected under 35 U.S.C. 102(b) as being anticipated by MathWorks' Simulink "Dynamic System Simulation for MATLAB" "Using Simulink Version 2.2", 1997 ("MathWorks").

MPEP 2131.01 Multiple Reference 35 U.S.C. 102 Rejections recites:

Normally, only one reference should be used in making a rejection under 35 U.S.C. 102. However, a 35 U.S.C. 102 rejection over multiple references has been held to be proper when the extra references are cited to: (A) Prove the primary reference contains an "enabled disclosure; " (B) Explain the meaning of a term used in the primary reference; or (C) Show that a characteristic not disclosed in the reference is inherent. See paragraphs I-III below for more explanation of each circumstance.

The above section of the MPEP relates to the use of the following references to show inherency within MathWorks: "The Real-Time Workshop User's Guide." ("RTW"); and "Target Language Compiler Reference Guide" ("TLC") (See PTO-892 for reference information).

As per claim 1, MathWorks discloses: In a modeling and execution environment, a method comprising the steps of:

providing a graphical debugger interfaced with a model view of a model being executed, said

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model comprising one or more blocks that comprise a plurality of execution methods (12-3; 9-37; 9-42

"The block can integrate using these methods: ..."),

said graphical debugger having debug information related to the execution of said model (12-3),
said debug information indicating at least one of the order of the execution of said plurality of
execution methods for said one or more blocks (12-16, 12-16 to 12-19, 12-5) and

a start time or a stop time of at least one of said plurality of execution methods that are
executed during the execution of said model (**start time ... 12-3 last para; 2-12; stop time
... 4-2 "An important advantage is that you can perform certain operations
interactively while a simulation is running: You can modify many simulation
parameters, including the stop time, the solver, and the maximum step size."**); and
outputting said debug information to a user, said debug information allowing the user to
determine proper or improper operation for at least a subset of said plurality of execution methods that
are executed during the execution of said model.

As per claim 2, Mathwork discloses: The method of claim 1, comprising the further steps of:

wrapping data generated by the execution of said model in an object, said wrapping
encapsulating said execution-generated data in said object (11-3: **How to Specify a Path for
a Simulink Object, 9-4 "To File", 9-61, -144, -145**); and
exposing said data to said debugger via at least one interface to said object (9-92 **the
exposure occurs when the debugger reads the information into the memory "From
File", 9-61, -144, -145**).

As per claim 3, MathWorks discloses: The method of claim 2, comprising the further step of: altering said
data via said interface (-131, 4-2: **"An important advantage is that..."**).

As per claim 5, MathWorks discloses: The method of claim 1, comprising the further steps of:

processing said model to create compiled model information (1-10 **bullet 2, 1-12, 8-2: "C
language S-functions are compiled as MEX-files using the mex utility described in the
Application Program Interface Guide. As with other MEX-files, they are dynamically**

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linked into MATLAB when needed.); and

programmatically generating executable code from said compiled model information, said code including an interface to said debugger **(1-12: linked, 8-36 first 3 para, 8-42: cg_sfuns.h is included if the file is being used in conjunction with the Simulink Real-Time Workshop to produce a stand-alone or real-time executable.)**.

As per claim 6, MathWorks discloses: The method of claim 5, comprising the further step of:

executing said generated code wherein said debugger at least one of sends and receives information from said executing code during said execution **(5-50 second para from bottom ...the debugger is in communication with the executable. "The Real-Time Workshop User's Guide." ("RTW") expands on this limitation MPEP 2131.01 allows for multiple reference to be used to show inherency. RTW expands on this limitation. See RTW 6-10 : "External Mode Communication External mode allows communication between the Simulink block diagram and the stand-alone program that is built from the generated code. In this mode, the real-time program functions as an interprocess communication server, responding to requests from Simulink. See Chapter 4, "External Mode, Data Logging, and Signal Monitoring," for information on external mode.")**.

As per claim 7, MathWorks discloses: The method of claim 6, comprising the further steps of:

saving an execution history for said executable code **(MathWorks' "Target Language Compiler Reference Guide" ("TLC") further expands on this inherent feature on page A-20 "This history is saved in the real-work vector.")**; and
outputting the execution history by at least one of saving it in a permanent memory location **(this feature is inherent)**, displaying it for a user **(the GUI displays the results to the users, furthermore, the data stored to the files is viewable by users)**, or sending it to a printing device to be printed **(RTW: 4-9, MathWorks: 3-26)**.

As per claim 8, MathWorks discloses: The method of claim 6 wherein said debugger is started after

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compilation and before the execution of said code (**this feature is inherent within the disclosure. Specifically, the debugger must have something to debug and therefore debugs after the compilation has finished. Furthermore, the debugger starts the execution of the code and is therefore started before the execution of the code.**).

As per claim 9, MathWorks discloses: The method of claim 1, comprising the further step of:

indicating graphically using said debugger a plurality of blocks that are part of an algebraic loop when the executing model is processing the algebraic loop (**7-10, 12-14, 12-18, 4-20 first para**).

As per claim 17, MathWorks discloses: The method of claim 1, comprising the further step of:

communicating with an external mode simulation with said debugger (**8-114:**

"SS_SIMMODE_EXTERNAL — External mode simulation")).

As per claim 18, MathWorks discloses: The method of claim I, comprising the further step of:

saving a snapshot of data relating to model execution during execution of said model, said snapshot data sufficient to enable the subsequent restarting of the execution of said model using said snapshot data (**4-16: "You can also save the final states for a simulation and apply them to another simulation. This feature might be useful when you want to save a steady-state solution and restart the simulation at that known state."**).

As per claim 19, MathWorks discloses: The method of claim 18 wherein said snapshot data is saved programmatically at least one or more of a regular interval or based on a user-defined parameter (**4-16:**

"You can also save the final states for a simulation and apply them to another simulation.

This feature might be useful when you want to save a steady-state solution and restart the simulation at that known state." The user defined parameter is whenever the user chooses to do so manually.).

As per claim 20, MathWorks discloses: The method of claim 19, comprising the further step of: loading a saved snapshot into said debugger; and

executing a saved model based on said saved snapshot, said saved model executing from a point in time

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said snapshot was saved using information from said saved snapshot **(4-16: "You can also save the final states for a simulation and apply them to another simulation. This feature might be useful when you want to save a steady-state solution and restart the simulation at that known state.")**.

As per claim 21, MathWorks discloses: The method of claim 18, comprising the further step of: displaying graphically to a user the saved snapshot data **(this feature is inherent when the snapshot is restarted)**.

As per claim 22, MathWorks discloses: The method of claim 21, comprising the further step of displaying graphically to a user at least one additional set of snapshot data without restarting the execution of said model **(This feature is inherent, it is the filename of the snapshot.)**.

As per claim 24, MathWorks discloses: The method of claim 18, comprising the further step of: saving a difference between a set of current model execution data and a saved snapshot **(this feature is inherent. Specifically, when the simulation is restarted from a snapshot point and later saved it will be saved with the difference incorporated within the new snapshot.)**.

As per claim(s) 25-27, 29-33, 41-46, note the rejection of claim(s) 1-3, 5-9, 17-22, 24 above. The Instant Claim(s) is/are functionally equivalent to the above-rejected claim(s) and is/are therefore rejected under same prior-art teachings.

As per claims 48-50, note the rejection of claim 1-2 above. The Instant Claims recite substantially same limitations as the above-rejected claim and therefore rejected under same prior-art teachings.

MathWorks discloses: 51. The method of claim 48, further comprising:

displaying a hierarchy containing information about the first execution method or the second execution method, the hierarchy allowing a user to identify relationships between the first execution method and the second execution method, the first execution method and another execution method, or the second execution method and the another execution method **(1-3: "You can view the system at a high-level, then double-click on blocks to go down through the levels to see increasing**

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levels of model detail.”).

MathWorks discloses: 53. The method of claim 48, further comprising: identifying the first execution method or the second execution method using a visual indicator to identify when the first execution method or the second execution method is executing **(12-5)**.

As per claim 52, 54-55, note the rejection of claims 1-2, 51 and 53 above. The Instant Claim recites substantially same limitations as the above-rejected claims and therefore rejected under same prior-art teachings but for

identifying a first root method comprising one or more child methods, the first root method related to a graphical modeling application **(8-45 "root blocks"; 12-3 "start block")**;

As per claim 56, note the rejection of claim 55 above. The Instant Claim recites substantially same limitations as the above-rejected claim and therefore rejected under same prior-art teachings.

MathWorks discloses: 57. The method of claim 56, wherein the displaying an indicator further comprises:

displaying a first symbol when the status is related to the first root method; and displaying a second symbol when the status is related to the one or more child methods or the second root method **(3-19; 6-14; -118; 10-15; A-7)**.

MathWorks discloses: 58. The method of claim 56, wherein the displaying an indicator further comprises:

displaying a first color to represent a first status related to the first root method; and displaying a second color to represent a second status related to one of the one or more child methods or the second root method **(3-19; 6-14; -118; 10-15; A-7)**.

MathWorks discloses: 59. The method of claim 56, further comprising:

displaying the hierarchy in a first region related to one or more display devices; and displaying a graphical diagram related to the first root method or the second root method in a second region related to the one or more display devices, the graphical diagram synchronized with information displayed in the first region **(3-19; 6-14; -118; 10-15; A-7)**.

As per claim 60-66, note the rejection of claims 50-51, 57-60 above. The Instant Claim recites substantially same limitations as the above-rejected claims and therefore rejected under same prior-art

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teachings.

MathWorks discloses: 66. The method of claim 65, wherein the first indicator or the second indicator are a color, a pointer, a symbol, a font, or a border **(A-7)**.

MathWorks discloses: 67. The method of claim 64, wherein the first display area comprises a window that displays information about the graphical icon or the graphical icon debugging information **(2-6; 2-7; 2-11; 3-49)**.

MathWorks discloses: 68. The method of claim 67, wherein the window comprises a visual indicator to connect the window to the graphical icon or to the graphical icon debugging information **(2-6; 2-7; 2-11; 3-49)**.

MathWorks discloses: 69. The method of claim 64, further comprising: displaying an execution list in the hierarchy, the execution list related to the root method or the one or more child methods **(3-49)**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

23. Claim 4, 10-16, 23, 28, 34-40, 47 rejected under 35 U.S.C. 103(a) as being unpatentable over

MathWorks's Simulink, 1997 ("MathWorks") as applied to claim 1' above, and further in view of

Fenlason's "GNU gprof" ("GNU gprof") (1998).

As per claim 4, MathWorks discloses all limitations of claim 1, and that the execution-generated data is at least one of state information **(4-16 "Loading and Saving States", -131, A-22: signal generators, etc, 8-65)**, block inputs, block outputs **(3-15, 8-46 "In general, block inputs and outputs are written", 9-80)**, solver data **(4-4, 4-6, 4-16)**, signal values for said model **(-119, 8-124)**.

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MathWorks however does not explicitly disclose profiling data. GNU gprof however discloses an analogous application profiling system having the said feature (**page 14, "The primary line of this entry describes the total time spent directly in the functions of the cycle."**). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the references in order to time the execution of a program and routines of the program in order to identify which portions of the program cause a bottleneck and resolve them.

As per claim 10, MathWorks discloses: The method of claim 1, comprising the further step of: saving a record of a unique execution method invocation, (**1-3: "After you define a model, you can simulate it, using a choice of integration methods, either from the Simulink menus or by entering commands in MATLAB's command window."**). MathWorks however does not substantially disclose said execution unique execution method invocation comprising information related to the execution of one of said plurality of execution methods that belongs to at least one of said one or more blocks, a system, or a model instance in an execution list of called execution methods. GNU gprof however discloses an analogous application profiling system having the said feature (**page 11: Call Graph**).

As per claim 11, MathWorks discloses all limitations of claim 10. MathWorks does not expressly disclose that the unique execution method invocation record comprises information about child records of a subset of said plurality of execution executed inside said unique execution method invocation record. GNU gprof however discloses the said features (**page 12 section titled "children"**). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the references in order to time the execution of a program and routines of the program in order to identify which portions of the program cause a bottleneck and resolve them.

As per claim 12, MathWorks discloses all limitations of claim 11. MathWorks however does not expressly disclose that a link is provided from said unique execution method invocation record to said child record. GNU gprof however discloses an analogous system having the said feature (**page 6 section titled "--file-ordering map_file": "The '--file-ordering' option causes gprof to print a suggested .o link line ordering for the program**

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based on profiling data.”). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the references in order to time the execution of a program and routines of the program in order to identify which portions of the program cause a bottleneck and resolve them. As per claim 13, MathWorks discloses all limitations of claim 10. MathWorks does not however expressly disclose that the said unique execution method invocation record comprises information regarding at least one parent record of one or more of the plurality of execution methods in which said unique execution method invocation is executed. GNU gprof however discloses an analogous system having the said feature **(page 11: Call Graph)**. It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the references in order to time the execution of a program and routines of the program in order to identify which portions of the program cause a bottleneck and resolve them.

As per claim 14, MathWorks discloses all limitations of claim 13. MathWorks however does not expressly disclose a link is provided from said unique execution method invocation record to said parent record. GNU gprof however discloses an analogous system having the said feature **(page 6 section titled "--file-ordering map_file": "The '--file-ordering' option causes gprof to print a suggested .o link line ordering for the program, page 11: Call Graph)**. It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the references in order to time the execution of a program and routines of the program in order to identify which portions of the program cause a bottleneck and resolve them.

As per claim 15, MathWorks discloses all limitations of claim 10. MathWorks however does not expressly disclose that the said unique execution method invocation record comprises data about a state of the method invocation. GNU gprof however discloses an analogous system having the said feature **(page 11: Call Graph - called column)**.

As per claim 16, MathWorks discloses all limitations of claim 15. MathWorks however does not expressly disclose that the said state indicates the method invocation is at one of the states of entering, entered, exiting and exited **(page 11: Call Graph)**.

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As per claim 23, MathWorks discloses all limitations of claim 22. MathWorks however does not expressly disclose that the said set of snapshot data is displayed in order of decreasing time. This is merely a design choice. Microsoft Windows allows for sort of descending or ascending names, file types, sizes, creation and modification dates. This is done for faster searching and identification of the user-required information.

As per claim(s) 28, 34-40, and 47, note the rejection of claim(s) 4, 10-16, and 23 above. The Instant Claim(s) is/are functionally equivalent to the above-rejected claim(s) and is/are therefore rejected under same prior-art teachings.

Conclusion

24. All claims are rejected.

25. The Instant Application is not currently in condition for allowance.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Silver whose telephone number is (571) 272-8634. The examiner can normally be reached on Monday thru Friday, 10am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on 571-272-2279. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at

866-217-9197 (toll-free).

David Silver
Patent Examiner
Art Unit 2128


KAMINI SHAH
SUPERVISORY PATENT EXAMINER